

In the Claims:

1. (Currently Amended) A deformable medical implant, comprising:
a body defining at least two implant points, which body is adapted to be deformed so that the at least two implant points are moved relative to each other;
at least two elongate extensions, each extension fixed to one implant point;
a bridge coupling at least two of said extensions to each other; and
at least two hinges defined on said at least one of said at least two elongate extensions, two of said at least two hinges having different preferred bending directions and being defined on one of said at least two elongate extensions,
wherein said hinges operate to bend said extensions in a direction including a component perpendicular to a device plane of said body when said implant points are moved apart, said device plane being a substantially two-dimensional mathematical surface conforming to the general geometry of the device.
2. (Previously Presented) An implant according to claim 1, wherein said at least two elongate extensions each comprise a plurality of hinges.
3. (Currently Amended) An implant according to claim 2, wherein the hinges on said one elongate extension ~~are a mirror of~~ the hinges on another, coupled, extension of the at least two elongate extensions.
4. (Previously Presented) An implant according to claim 2, wherein the plurality of hinges on said one elongate extension have different axial locations than corresponding hinges on a second, coupled, elongate extension of the at least two elongate extensions.
5. (Previously Presented) An implant according to claim 2, wherein at least one of the plurality of hinges on said one elongate extension has a hinge bending direction different from corresponding hinges on a second, coupled, elongate extension of the at least two elongate extensions.
6. (Previously Presented) An implant according to claim 2, wherein at least one of the plurality of hinges on said one elongate extension has a resistance to bending different from

corresponding hinges on a second, coupled, elongate extension of the at least two elongate extensions.

7. (Withdrawn) An implant according to claim 1, wherein only one of said at least two elongate extensions comprises a plurality of hinges.

8. (Withdrawn) An implant according to claim 1, wherein only one of said at least two elongate extensions comprises a plurality of hinges and at least two of said plurality of hinges have bending axes that are oblique to a device plane of said body, said device plane being a substantially two-dimensional mathematical surface conforming to the general geometry of the device.

9. (Withdrawn) An implant according to claim 7, wherein at least one of said plurality of hinges has a preferred bending direction in a device plane of said body, said device plane being a substantially two-dimensional mathematical surface conforming to the general geometry of the device.

10. (Withdrawn) An implant according to claim 9, wherein at least one of said plurality of hinges has a preferred bending direction perpendicular to a device plane of said body, said device plane being a substantially two-dimensional mathematical surface conforming to the general geometry of the device.

11. (Canceled)

12. (Currently Amended) An implant according to claim 1, wherein said hinges are arranged to bend at least one of said extensions at at least two points, in different directions.

13. (Currently Amended) An implant according to claim 1, wherein said hinges are arranged to bend said extensions at least 45 degrees away from said device plane.

14. (Currently Amended) An implant according to claim 1, wherein said hinges are arranged to bend said extensions at least 80 degrees away from said device plane.

15. (Currently Amended) An implant according to claim 11, wherein said hinges are arranged to bend said extensions at least 90 degrees away from said device plane.
16. (Currently Amended) An implant according to claim 11, wherein said hinges are arranged to bend said extensions at least 120 degrees away from said device plane.
17. (Currently Amended) An implant according to claim 1, wherein at least one of said hinges comprises cuts in said at least one of said at least two extensions~~extension~~.
18. (Currently Amended) An implant according to claim 1, wherein at least one of said hinges comprises a weakening in a position along said at least one of said at least two extensions~~extension~~.
19. (Currently Amended) An implant according to claim 1, wherein at least one of said hinges comprises a bore in said at least one of said at least two extensions~~extension~~.
20. (Withdrawn) An implant according to claim 1, wherein said extensions extend axially away from said body, prior to moving apart of said implant points.
21. (Previously Presented) An implant according to claim 1, wherein said extensions extend axially towards said body, prior to moving apart of said implant points.
22. (Previously Presented) An implant according to claim 1, wherein said bridge is defined at an end of said extensions.
23. (Previously Presented) An implant according to claim 1, wherein said bridge is deformable.
24. (Original) An implant according to claim 23, wherein said bridge is more resistant to bending than said hinges.
25. (Previously Presented) An implant according to claim 1, wherein said hinges are plastically deformable.

26. (Currently Amended) An implant according to claim 1, wherein said at least two ~~plurality of~~ hinges comprise at least three hinges on a single extension.
27. (Previously Presented) An implant according to claim 1, wherein said body is cylindrical.
28. (Previously Presented) An implant according to claim 1, wherein said implant is adapted for implanting in a blood vessel.
29. (Previously Presented) An implant according to claim 1, wherein said implant is a stent.
30. (Previously Presented) An implant according to claim 29, wherein the at least two extensions define a flared section for said stent.
31. (Withdrawn) An implant according to claim 30, wherein said flared section provides symmetric flaring.
32. (Currently Amended, Withdrawn) An implant according to claim 30, wherein said flared section ~~provides~~ has a flaring axis that is at an angle to an axis of said stent.
33. (Withdrawn) An implant according to claim 30, wherein said flared section comprises a coupling between different extensions such that a flaring angle at one side of the flare compensate for a flare angle at another side of the flare.
34. (Previously Presented) An implant according to claim 30, wherein said flared section is defined on a side of said stent.
35. (Previously Presented) An implant according to claim 34, wherein said flared section has an axis generally perpendicular to an axis of said stent.

36. (Previously Presented) An implant according to claim 34, wherein said flared section is generally cylindrical.

37. (Previously Presented) An implant according to claim 29, wherein said stent is a mesh stent.

38. (Currently Amended) An implant according to claim ~~37~~30, wherein said flared section is a mesh.

39. (Previously Presented) A method of distorting a stent structure having at least two extensions coupled at a point thereof and sized and shaped to be placed in a vascular bifurcation, comprising:

changing the relative position of two points on said extensions that are distanced from said coupling point;

transforming, using a plurality of pre-defined hinges, tension forces applied by said changing into forces that bend said structure in a plane outside of a plane defined by said changing.

40. (Original) A method according to claim 39, wherein said structure is cylindrical.

41. (Original) A method according to claim 40, wherein said changing is applied by radially expanding said cylindrical structure.

42. (Previously Presented) A method according to claim 40, wherein transforming comprises flaring out at least one of said extensions to more than 50 degrees relative to an axis of said cylinder.

43. (Original) A method according to claim 42, wherein said flaring includes a change in angle relative to said axis, along said extensions.

44. – 57. (Cancelled)

58. (Previously Presented) An implant according to claim 1, wherein said implant is a stent and wherein said elongate extensions face each other across an aperture in the stent.
59. (Previously Presented) An implant according to claim 34, wherein said bridge is deformable.
60. (Currently Amended) An implant according to claim ~~1~~58, wherein said ~~stent~~-body is adapted to deform such that parts of said elongate extensions deform and parts of said elongate extensions do not deform.
61. (Previously Presented) A method according to claim 39, wherein said at least two extensions face each other.
62. (Previously Presented) A method according to claim 39, wherein said transforming comprises extending said extensions into a side branch of a vessel bifurcation.
63. (Previously Presented) A method according to claim 39, wherein said transforming comprises deforming parts of said extensions and not deforming other parts of said extensions.
64. (Previously Presented) Apparatus according to claim 1, wherein said hinges are parts of struts of said implant.
65. (Withdrawn) Apparatus according to claim 30, wherein said flared section is at an end of said stent.
66. (Previously Presented) A stent comprising:
- (a) an expandable cylindrical body;
 - (b) an aperture defined in a side of the body and designed for allowing passage to a side branch;
 - (c) at least two extensions mounted adjacent said aperture and configured to be extended away from said body, by an expansion of said body.

67. (Previously Presented) A stent according to claim 66, wherein said extensions are connected by a bridge.

68. (Previously Presented) A stent according to claim 67, wherein said bridge is deformable and interconnects portions of said extensions not in a plane of said cylindrical body.

69. (Previously Presented) A stent according to claim 66, wherein said extensions are on opposing sides of said aperture.

70. (Previously Presented) A stent according to claim 66, wherein at least one of said extensions includes a radio-opaque marker that extends away from said body with said extension.

71. (Previously Presented) A stent according to claim 66, wherein said stent is sized and shaped to be placed in a vascular bifurcation of a main vessel, said at least two extensions being sized and shaped to be placed in a side vessel when extended away from said body.

72. (Previously Presented) A deformable medical implant, comprising:

a body, sized and shaped to be implanted in a vascular bifurcation, and defining at least two implant points, which body is adapted to be deformed so that the two implant points are moved relative to each other;

at least two elongate extensions, each extension fixed to one implant point;

a bridge coupling at least two of said extensions to each other; and

at least two hinges defined on at least one of said extensions, two of said at least two hinges having different preferred bending directions and being defined on one of said at least two elongate extensions so as to allow a flaring of said at least one extension as an outcome of said deformation.

73. (Previously Presented) A method for deploying a stent, comprising:

guiding an expandable cylindrical body to a vessel bifurcation between a main vessel and a side vessel;

expanding said expandable cylindrical body in said vessel bifurcation; and

extending away at least two extensions of said expandable cylindrical body from said body, into said side vessel, said extending being brought about by said expanding.

74. (Previously Presented) A stent comprising:

an expandable cylindrical body sized and shaped to be implanted in a vascular bifurcation between a blood vessel and a side branch thereof;

an aperture defined in a side of said expandable cylindrical body and designed for allowing passage to said side branch;

at least two extensions mounted adjacent said aperture; and

at least two hinges defined on at least one of said extensions so as to allow extending said at least two extensions away from said body, as an outcome of an expansion of said expandable cylindrical body.

75. (Currently Amended) A deformable medical implant according to claim 1, wherein said at least two hinges are bendable elements with no specific bending points defined ~~on it~~ thereon.

76. (Previously Presented) A deformable medical implant according to claim 1, wherein said at least two hinges are weaker portions defined on said at least one of said extensions.

77. (Previously Presented) A deformable medical implant according to claim 1, wherein said at least two hinges are plastically deformable portions defined on said at least one of said extensions.

78. (New) A stent for a bifurcation of a blood vessel comprising:

an expandable body having first and second parts joined to form a unitary structure, the body having a longitudinal axis and a surrounding surface, and defining a plurality of points of implantation for engaging the interior of the blood vessel, wherein the body is deformable to move the implant points relative to each other; and

a plurality of elongated extensions from said body, fixed to the implant points having different preferred bending directions,

wherein, upon application of an expansion force to said body, the first part of the body enlarges outwardly, and one or more of the extensions comprised in the second part move

away from the surface of the body and become oriented at an angle to the longitudinal axis of the body corresponding to the angle of the bifurcation.

79. (New) A deformable medical implant, comprising:

an expandable body having a longitudinal axis and a surrounding surface, said body defining a plurality of implant points, wherein the body is deformable to move the implant points relative to each other; and

a plurality of elongated extensions, each extension respectively fixed to one implant point, two of said extensions being coupled to each other, said extensions, said two hinges having different preferred bending directions,

wherein, upon expansion of said body, at least one of said extensions moves out of the surface of the body and is oriented at an angle to the longitudinal axis of the body.